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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,388	12/21/2001	Jacques Breitenstein	FR000143	4859
24737	7590	01/03/2005	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510			JOHNS, ANDREW W	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 01/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/028,388

Applicant(s)

BREITENSTEIN ET AL.

Examiner

Andrew W. Johns

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/21/01</u> . | 6) <input type="checkbox"/> Other: ____.  |

### DETAILED ACTION

1. The drawings are objected to because Figures 1, 5a, 5b, 6a, and 7 require appropriate legends so that they can be more readily understood. 37 C.F.R. § 1.84(o). Corrected drawing sheets in compliance with 37 C.F.R. § 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 C.F.R. § 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 U.S.C. § 101*

2. 35 U.S.C. § 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claim 10 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claim 10 is directed towards a computer program which can be carried out by means of a processor, intended to perform the image processing method defined in claim 1. Computer programs are collections of instructions that control the operation of a computer, but do not embody a method in and of themselves. Furthermore, the program, as set forth in the instant claim, also fails to define a tangible product, so that the invention, as claimed does not fall into one of the statutory classes of invention. Computer programs are considered to be functional descriptive material, which is only considered to be statutory when it is specifically recited as being embodied in a computer-readable storage medium so as to constitute a tangible product. See M.P.E.P. § 2106.

***Claim Rejections - 35 U.S.C. § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The recitation, at lines 5-6 of claim 1 of “the decision step comprises, in parallel,...” is indefinite because it appears to be contradicted by the subsequent language of claim 1, which appear to define a series of sequential sub-steps. Specifically, the sub-step of analyzing is “at the end of the sub-step of estimating”, and the sub-step of selecting operates as “function of the result of the sub-step of analyzing.” Since each of these sub-steps follows the preceding sub-step, it is unclear how they are “in parallel” as stipulated at line 6. Therefore, the claim language fails to clearly point out and distinctly define applicant’s invention.

In addition, the recitation, at line 4 of claim 11, of “and possibly a device for storing said images” also fails to clearly point out and define applicant’s invention. Specifically, it is unclear whether or not applicant’s claimed system requires a device for storing the image. Since it is unclear whether this device is required by applicant’s invention, the claim fails to particularly point out and clearly define the invention.

Claims 2-10 and 12 are variously dependent from indefinite claims and are therefore indefinite themselves.

***Claim Rejections - 35 U.S.C. § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 10 is rejected under 35 U.S.C. § 102(b) as being anticipated by Zhou et al. (US 5,859,929 A).

With respect to claim 10, Zhou et al. teaches a computer program which can be carried out by means of a processor (column 4, lines 41-54). While Zhou et al. fails to specifically describe the various steps of the method of claim 1, this language of claim 10 is a recitation of intended use for the claimed program, and fails to further limit the claimed invention. Because Zhou et al. meets the positive limitations of the claim, Zhou et al. anticipates the claimed invention.

8. Claims 11 and 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Roehm et al. (US 5,809,105 A).

With respect to claim 11, Roehm et al. teaches an image processing system comprising a computer or a circuit (19 in Figure 2), a device for projecting processed images (24 in Figure 2), and a device for storing the images (RAM connected to bus 30 in Figure 2, for example). While Roehm et al. fails to specifically show a computer implementing the program of claim 10 or a circuit implementing the method of any one of claims 1 to 9, this language of claim 11 is a recitation of intended use. Because the system of Roehm et al. meets each of the positively recited limitations of claim 11, it meets the limitations required by the claim, and could be used for the intended purpose. Therefore, the claimed invention is anticipated by Roehm et al. In addition, Roehm et al. further teaches a medical scanning apparatus (Figure 1, for example) comprising an image acquisition device (12 in Figures 1 and 2) and an image processing system as set forth in claim 11 (shown in Figure 2), as further required by claim 12. Therefore, Roehm et al. further anticipates the invention defined by claim 12.

### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Makram-Ebeid teaches the use of morphological operations to process images of blood vessels, while Kanda et al. each teaches using pixel orientation determinations to process images. The foreign patent documents and the IEEE article were cited in the search report in the foreign priority application and are therefore made of record.

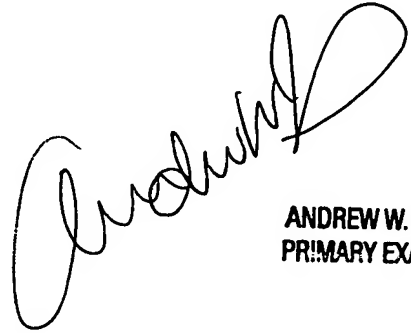
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Johns whose telephone number is (703) 305-4788. The examiner is normally available Monday through Friday, at least during the hours of 9:00 am to 3:00 pm Eastern Time. The examiner may also be contacted by e-mail using the address: andrew.johns@uspto.gov. (Applicant is reminded of the Office policy regarding e-mail communications. See M.P.E.P. § 502.03)

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Leo Boudreau, can be reached on (703) 305-4706. The fax phone number for this art unit is (703)

872-9306. In order to ensure prompt delivery to the examiner, all unofficial communications should be clearly labeled as "Draft" or "Unofficial."

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center Receptionist whose telephone number is (703) 305-4700.

A. Johns  
14 December 2004

A handwritten signature in black ink, appearing to read "Andrew W. Johns". The signature is stylized with a large initial "A" and a long, sweeping underline.

**ANDREW W. JOHNS  
PRIMARY EXAMINER**